

In the Claims

1. (currently amended) A snowboard binding interface assembly for mounting a snowboard binding to a snowboard, the interface assembly comprising:

a base plate coupled to the snowboard and having a plurality of recesses for receiving a locking device;

a stationary annular retaining ring rigidly coupled to said base plate;

a binding plate captured by said stationary annular retaining ring, said binding plate rotationally displaceable with respect to said stationary annular retaining ring;

a top plate coupled to said binding plate and to the snowboard binding;

a locking element, displaceable to engagingly lock said top plate to said base plate in one of a plurality of rotational positions, said locking element including a locking pin extending through the top plate, the locking pin engaging with one of a plurality of locking holes located in the base plate; and

an alignment device for aligning the locking pin with one of the plurality of locking holes when selecting one of the plurality of rotational positions, said alignment device providing an indication to a user when the locking pin is substantially aligned with one of the plurality of locking holes;

wherein the stationary annular retaining ring has a lip that engages with an outer edge of the binding plate.

2. (original) The snowboard binding interface assembly according to claim 1 wherein the binding plate comprises a disk.

3. (cancelled)

4. (currently amended) The snowboard binding interface assembly according to claim 1 wherein the lip comprises a chamfered edge having an angle α and the bind-

ing plate has a chamfered outer edge having an angle β , where the sum of angle α and angle β equal 180° .

5. (currently amended) ~~The snowboard binding interface assembly according to claim 1 further comprising~~ A snowboard binding interface assembly for mounting a snowboard binding to a snowboard, the interface assembly comprising:

a base plate coupled to the snowboard and having a plurality of recesses for receiving a locking device;

a stationary annular retaining ring rigidly coupled to said base plate;

a binding plate captured by said stationary annular retaining ring, said binding plate rotationally displaceable with respect to said stationary annular retaining ring;

a top plate coupled to said binding plate and to the snowboard binding;

an outer ring located between said top plate and said base plate, said outer ring coupled to the top plate;

a locking element, displaceable to engagingly lock said top plate to said base plate in one of a plurality of rotational positions, said locking element including a locking pin extending through the top plate, the locking pin engaging with one of a plurality of locking holes located in the base plate; and

an alignment device for aligning the locking pin with one of the plurality of locking holes when selecting one of the plurality of rotational positions, said alignment device providing an indication to a user when the locking pin is substantially aligned with one of the plurality of locking holes.

6. (cancelled)

7. (previously presented) The snowboard binding interface assembly according to claim 1 wherein the locking pin is biased to an engaged position with one of the plurality of locking holes.

8. (previously presented) The snowboard binding interface assembly according to claim 1 wherein the locking holes are distributed around a circumference of the base plate.

9. (previously presented) The snowboard binding interface assembly according to claim 1 wherein the locking holes are angularly distributed around the base plate at no less than approximately five degree intervals.

10. (cancelled)

11. (currently amended) ~~The snowboard binding interface assembly according to claim 1~~ A snowboard binding interface assembly for mounting a snowboard binding to a snowboard, the interface assembly comprising:

a base plate coupled to the snowboard and having a plurality of recesses for receiving a locking device;

a stationary annular retaining ring rigidly coupled to said base plate;

a binding plate captured by said stationary annular retaining ring, said binding plate rotationally displaceable with respect to said stationary annular retaining ring;

a top plate coupled to said binding plate and to the snowboard binding;

a locking element, displaceable to engagingly lock said top plate to said base plate in one of a plurality of rotational positions, said locking element including a locking pin extending through the top plate, the locking pin engaging with one of a plurality of locking holes located in the base plate; and

an alignment device for aligning the locking pin with one of the plurality of locking holes when selecting one of the plurality of rotational positions, said alignment device providing an indication to a user when the locking pin is substantially aligned with one of the plurality of locking holes;

wherein the stationary annular retaining ring is provided with a keyed outer edge and the alignment device comprises an alignment pin located in an outer ring cou-

pled to the top plate, the alignment pin engaging with the keyed outer edge to selectively align the locking pin with one of the plurality of locking holes.

12. (previously presented) The snowboard binding interface assembly according to claim 1 wherein the locking pin is connected to one end of a leash which is provided to connect to a rider's leg.

13. (previously presented) The snowboard binding interface assembly according to claim 1 wherein the locking pin is keyed to maintain the locking pin in a locked position with one of the plurality of locking holes.

14. (currently amended) A method of adjusting a rotational position of a snowboard boot while in a snowboard binding comprising the steps of:

- positioning a snowboard binding interface between a snowboard and the snowboard binding;

- vertically displacing a locking mechanism on the snowboard binding interface to disengage the locking mechanism;

- rotating the snowboard boot to one of a plurality of rotational positions;

- aligning the locking mechanism with one of a plurality of locking holes provided in a base portion of the snowboard binding interface with an alignment device provided in the snowboard binding interface, the alignment device providing an indication to a user when the locking mechanism is substantially aligned with one of the plurality of locking holes while the locking mechanism is disengaged, the alignment device providing a biasing alignment force such that the alignment of the locking mechanism with one of the plurality of locking holes is maintained prior to engaging the locking mechanism; and

- engaging the locking mechanism on a snowboard binding interface to rigidly maintain the selected rotational position of the snowboard boot relative to the snowboard.

15. (original) The method according to claim 14 wherein the plurality of rotational positions are no less than approximately five degree rotational adjustments.

16. (original) The method according to claim 14 wherein the locking mechanism is connected to one end of a leash which is provided to connect to a rider's leg.

17. (original) The method according to claim 16 wherein the step of vertically displacing the locking mechanism is accomplished by pulling upward on the leash that is connected to the locking mechanism.

18. (original) The method according to claim 14 wherein the locking mechanism is biased to a locked position.

19. (currently amended) A snowboard binding interface assembly for mounting between a snowboard binding and a snowboard, the interface assembly comprising:

a stationary annular retaining ring coupled to the snowboard, said annular retaining ring having an inner circumference (L_1);

a binding plate captured by said stationary annular retaining ring, said binding plate rotationally displaceable to a plurality of rotational positions with respect to said stationary annular retaining ring, said binding plate having an outer circumference (L_2), where (L_2) is greater than (L_1);

a top plate coupled between said binding plate and the snowboard binding, said top plate have an outer circumference (L_3), where (L_3) is greater than (L_2);

a locking element to lock said binding plate in one of the plurality of rotational positions;

an alignment device for aligning the locking element with one of the plurality of rotational positions; and

a base plate coupled between the snowboard and said stationary annular retaining ring, said base plate having a plurality of recesses for receiving the locking element;

an outer ring located between said top plate and said base plate, said outer ring coupled to the top plate.

20.-23. (cancelled)

24. (currently amended) The snowboard binding interface assembly according to claim 19 23 wherein the stationary annular retaining ring is provided with a keyed outer edge and the alignment device comprises an alignment pin located in the outer ring, the alignment pin engaging with the keyed outer edge to selectively align the locking pin with one of the plurality of recesses.

25. (previously presented) The snowboard binding interface assembly according to claim 19 the locking element is vertically displaceable to engagingly lock said top plate to said base plate in one of the plurality of rotational positions.

26. (previously presented) The snowboard binding interface assembly according to claim 19 wherein said locking element comprises a locking pin located in said top plate that engages with one of the plurality of recesses.

27. (original) The snowboard binding interface assembly according to claim 26 wherein the locking pin is selectively biased to an engaged position with one of the plurality of recesses.

28. (currently amended) A snowboard binding interface assembly for mounting between a snowboard binding and a snowboard the interface assembly comprising:

a stationary annular retaining ring coupled to the snowboard, said annular retaining ring having an inner circumference (L_1);

a binding plate captured by said stationary annular retaining ring, said binding plate rotationally displaceable to a plurality of rotational positions with respect to said

stationary annular retaining ring, said binding plate having an outer circumference (L_2), where (L_2) is greater than (L_1), said binding plate having an outer circumference (L_3); and

an outer ring captured by said stationary annular retaining ring, said outer ring having an inner circumference (L_4), where (L_3) is greater than (L_4).

wherein the stationary annular retaining ring has a lip that engages with an outer edge of the binding plate.

29. (original) The snowboard binding interface according to claim 28 further comprising a locking mechanism to hold said binding plate at one of the plurality of rotational positions.

30.-31. (cancelled)

32. (currently amended) The snowboard binding interface assembly according to claim 29 ~~34~~ further comprising an alignment device for aligning the locking element with one of the plurality of rotational positions.

33. (previously presented) A snowboard binding interface assembly for mounting between a snowboard binding and a snowboard the interface assembly comprising:

a base plate coupled to the snowboard;

a stationary annular retaining ring coupled to said base plate, said annular retaining ring having an inner circumference (L_1), said annular retaining ring having a continuous inner wall; and

a binding plate captured by said stationary annular retaining ring, said binding plate rotationally displaceable to a plurality of rotational positions with respect to said stationary annular retaining ring, said binding plate having a continuous outer wall abutting said continuous inner wall and having a circumference (L_2), where (L_2) is greater than (L_1), and said binding plate is maintained fully within said stationary annular

retaining ring with no portion thereof extending beyond an outer perimeter of said stationary annular retaining ring;

said base plate having a plurality of recesses positioned on an upper surface thereof and selectively engagable with a vertically displaceable locking element to lock said binding plate in one of the plurality of rotational positions, said plurality of recesses substantially evenly spaced around a perimeter of said base plate.

34. (cancelled)

35. (previously presented) The snowboard binding interface assembly according to claim 33 further comprising an alignment device for aligning the locking element with one of the plurality of rotational positions.

36. (cancelled)

37. (currently amended) A snowboard binding interface assembly for mounting between a snowboard binding and a snowboard the interface assembly comprising:

a first stationary ~~portion~~ annular retaining ring coupled to the snowboard comprising a continuous enclosed ring;

a ~~second moveable portion~~ binding plate coupled to the snowboard binding, said ~~second moveable portion~~ binding plate being captured by said first stationary ~~portion~~ annular retaining ring such that said ~~second moveable portion~~ binding plate is maintained fully within said first stationary ~~portion~~ annular retaining ring with no portion thereof extending beyond an outer perimeter of said first stationary ~~portion~~ annular retaining ring;

a top plate coupled between said ~~second moveable portion~~ binding plate and the snowboard binding, said top plate being rotatable to one of a plurality of rotational positions;

wherein said annular retaining ring has an inner circumference (L_1), said binding plate has an outer circumference (L_2), where (L_2) is greater than (L_1), and said top plate has an outer circumference (L_3), where (L_3) is greater than (L_2).

38.-43. (cancelled)

44. (currently amended) The snowboard binding interface assembly according to claim 37 wherein said ~~first stationary portion~~ annular retaining ring has an inner chamfered edge having an angle α and said ~~second moveable portion~~ binding plate has a chamfered outer edge having an angle β , where the sum of angle α and angle β equal 180° .

45. (currently amended) The snowboard binding interface assembly according to claim 37 further comprising a locking element to lock said ~~second moveable portion~~ binding plate in one of the plurality of rotational positions.

46. (original) The snowboard binding interface assembly according to claim 45 further comprising an alignment device for aligning the locking element with one of the plurality of rotational positions.

47. (original) The snowboard binding interface assembly according to claim 37 wherein the snowboard binding interface assembly has a height (h) of approximately $\frac{3}{4}$ of an inch.